MULTI-SERVICE DATA TRANSPORT ARCHITECTURE

Abstract of the Disclosure

[0060] An improved architecture for transmitting data from a plurality of sources to a plurality of destinations, wherein pieces of data directed to each destination are aggregated and transmitted periodically. In one embodiment, a plurality of ingress edge units and a plurality of egress edge units which are each coupled to an optical switching matrix. The ingress edge units are configured to parse incoming signals into components, each of which is destined for a particular one of the egress edge units. A switch is configured to store the data components destined for each egress edge unit in a corresponding buffer or set of buffers. Each of the buffers is read sequentially during a corresponding timeslot, with the data stored therein being transmitted to the designated egress edge unit. The data is thereby time-multiplexed for transmission to the egress edge units.